

REMARKS

Claims 1-50 are pending in this application. Claims 3-6, 9-17, 21-27 and 31-50 have been withdrawn from consideration as the result of the October 11, 2005 Restriction Requirement and December 13, 2005 Election of Species Requirement. By this Amendment, claims 1, 3, 8, 13, 19, 20, 33 and 36 have been amended. In light of at least the following remarks, Applicants respectfully request reconsideration and allowance of the pending claims.

Applicants appreciate the courtesies shown to Applicants' representative by Examiners Goloub and Rodriguez in the May 11, 2006 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

I. Claim Rejections Under 35 U.S.C. §112, second paragraph

As clarified at the personal interview, the Office Action rejects claim 19 (erroneously indicated as claim 20) under 35 U.S.C. §112, second paragraph as being indefinite. Specifically, the Office Action states that it is unclear where the grating is located and whether there is more than one grating. While Applicants submit that it is clear in light of the specification that original claim 19 recited a grating in two layers, claim 19 is amended to more clearly recite these features. Thus, Applicants respectfully request withdrawal of the rejection.

II. Claim Rejections Under 35 U.S.C. §102(b)

The Office Action rejects claims 1-3 and 28-29 under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 5,343,490 to McCall. Applicants respectfully traverse the rejection.

The Office Action alleges McCall discloses a grating-outcoupled microcavity disk resonator as disk 70 of Figure 7 and disk 80 of Figure 8, wherein the grooves 84 allegedly disclose the recited at least one grating region.

At the May 11 personal interview, Applicants explained that the term grating has a specific meaning in the art. McCall depicts five grooves in Figure 8 and refers to them as grooves 84. McCall never refers to the grooves 84 as a grating, never identifies them as periodic or spaced evenly, and never specifies how many grooves are needed. McCall never identifies the grooves 84 as working together to cause light defraction but instead contradicts this by stating that the "out-of-plane direction is determined by the angle of grooves sides 85 as coupled with index contrast." Col. 11, lines 27-29. Further, Figure 8 shows grooves 84 as quite spaced out with unetched portions of disk 80 occupying at least four times the width of each groove as inter-groove spacing. Thus, as discussed in the May 11, 2006 interview, Applicants respectfully assert that grooves 84 function independently and not as a grating. Therefore, Applicants submit that McCall does not disclose all of the features of claim 1.

However, Applicants have amended claim 1 to more clearly distinguish the claimed features. Figure 8 of McCall depicts five non-symmetric grooves. McCall discloses the grooves 84 are to outcouple clockwise circulating light and indicates that counter-clockwise circulating light may be outcoupled by use of mirror layers not shown (col. 1, lines 26-32). Thus, McCall at least fails to disclose a grating having a substantially symmetric cross-sectional profile as recited in claim 1. Applicants therefore respectfully request withdrawal of the rejection.

Regarding claim 2, the Office Action alleges McCall discloses the recited grating region formed in a cladding layer by reference to spacing layer 72 of Figure 7. As Applicants' representative explained in the May 11 personal interview, McCall does not disclose grooves 84 as being part of the embodiment shown in Figure 7, let alone being formed in a layer other than the resonating disk. Examiner Golub indicated, in the May 11 interview, that she views disk 80 of Figure 8 as containing both a waveguide layer and cladding layers and that grooves

84 extend through a top cladding layer and into the waveguide layer. Applicants submit that McCall does not disclose disk 80 as containing cladding layers. Even allowing that disk 80 includes cladding layers, McCall is silent as to any disclosure that the grooves 84 extend through more than one layer. For the foregoing reasons, in addition to the reasons claim 1 is patentable, claim 2 is patentable over McCall.

The rejection of claim 3 is based on the premise that McCall discloses all of the features of claims 1 and 2. Because McCall does not disclose all of the features of claims 1 and 2 as discussed, the rejection of claim 3 is improper.

The Office Action's rejection of claims 28-29 is premised upon the presumption that McCall discloses all of the features of claim 1. Because, as discussed above, McCall does not disclose all of the features of claim 1, the rejection is improper.

For the foregoing reasons, Applicants respectfully request the withdrawal of the rejections of claims 1-3 and 28-29.

III. Claim Rejections Under 35 U.S.C. §103

The Office Action rejects claims 7-8 under 35 U.S.C. §103(a) as unpatentable over McCall in view of U.S. Patent No. 5,559,824 to Baird et al. (hereafter "Baird"). Applicants respectfully traverse the rejection. Further, the Office Action rejects claims 18-20 under 35 U.S.C. §103(a) as unpatentable over McCall in view of U.S. Patent No. 6,219,369 to Portnoi et al. (hereafter "Portnoi"). Applicants respectfully traverse the rejection.

The rejection of claims 7-8 and 18-20 are based on the premise that McCall discloses all of the features of claim 1. Because McCall does not disclose all of the features of claim 1 as discussed, the rejection of claims 7-8 and 18-20 is improper. Thus, Applicants respectfully request withdrawal of the rejections of claims 7-8 and 18-20.

The Office Action rejects claims 25-26 and 30 under 35 U.S.C. §103(a) as unpatentable over McCall. Applicants respectfully traverse the rejection.

The Office Action admits that McCall does not teach the specific materials recited in claims 25-26 and 30, but alleges it would have been obvious to one of ordinary skill in the art at the time of the invention to make use of the materials recited in claims 25-26 and 30. However, this rejection is premised upon the presumption that McCall discloses all of the features of claim 1. Because, as discussed above, McCall does not disclose all of the features of claim 1, the rejection is improper.

For the foregoing reasons, Applicants respectfully request withdrawal of the rejections.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jonathan H. Backenstose
Registration No. 47,399

JAO:JHB/sxb

Date: June 6, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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